1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** Transpoxy Barrier
- **Article number:** 2.18 (A)
- **Relevant identified uses of the substance or mixture and uses advised against**
  - No further relevant information available.
- **Application of the substance / the mixture**
  - Coating material
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
  KOSSAN PAINT (M) SDN. BHD.
  1,Jalan Koporat 1/KU9, Taman Perindustrian Meru, 42200 Kapar, Selangor Darul Ehsan, Malaysia.
- **Further information obtainable from:**
  - Product safety department.
  - lskheong@kop.com.my
- **Emergency telephone number:**
  - Manufacturer/supplier
  - 603-33922799

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
  - GHS07
  - Skin Irrit. 2 H315 Causes skin irritation.
  - Eye Irrit. 2 H319 Causes serious eye irritation.
  - Skin Sens. 1 H317 May cause an allergic skin reaction.
  - Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
  - Not applicable.
- **Hazard description:** Xi Irritant
- **Information concerning particular hazards for human and environment:**
  - The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
  - R 36/38 Irritating to eyes and skin.
  - R 43 May cause sensitisation by skin contact.
  - R 52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
  - Contains epoxy constituents. May produce an allergic reaction.
- **Classification system:**
  - The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **Label elements**
- **Labelling according to EU guidelines:**
  - The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.
- **Code letter and hazard designation of product:** Xi Irritant

(Contd. on page 2)
Trade name: Transpoxy Barrier

- Hazard-determining components of labelling:
  reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \( \leq 700 \))

- Risk phrases:
  36/38 Irritating to eyes and skin.
  43 May cause sensitisation by skin contact.
  52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- Safety phrases:
  2 Keep out of the reach of children.
  24/25 Avoid contact with skin and eyes.

- Special labelling of certain preparations: Contains epoxy constituents. May produce an allergic reaction.

- Other hazards

- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.

- Dangerous components:

<table>
<thead>
<tr>
<th>CAS: 25068-38-6</th>
<th>reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ( \leq 700 ))</th>
</tr>
</thead>
<tbody>
<tr>
<td>NLP: 500-033-5</td>
<td>( 10-25% )</td>
</tr>
<tr>
<td>Xi R36/38; Xi R43; ( N R51/53 )</td>
<td>Aquatic Chronic 2, H411; Skin Irrit. 2, H313; Eye Irrit. 2, H319; Skin Sens. 1, H317</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 78-83-1</th>
<th>butanol</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS: 201-148-0</td>
<td>( 2.5-10% )</td>
</tr>
<tr>
<td>Xi R37/38-41; R10-67</td>
<td>Flam. Liq. 3, H226; Eye Dam. 1, H318; Skin Irrit. 2, H313; STOT SE 3, H335-H336</td>
</tr>
</tbody>
</table>

- Additional information: For the wording of the listed risk phrases refer to section 16.

4 First aid measures

- Description of first aid measures

<table>
<thead>
<tr>
<th>Description of first aid measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>After inhalation:</td>
</tr>
<tr>
<td>Supply fresh air and to be sure call for a doctor.</td>
</tr>
<tr>
<td>In case of unconsciousness place patient stably in side position for transportation.</td>
</tr>
<tr>
<td>After skin contact:</td>
</tr>
<tr>
<td>Immediately wash with water and soap and rinse thoroughly.</td>
</tr>
<tr>
<td>After eye contact:</td>
</tr>
<tr>
<td>Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.</td>
</tr>
<tr>
<td>After swallowing:</td>
</tr>
<tr>
<td>If symptoms persist consult doctor.</td>
</tr>
<tr>
<td>Information for doctor:</td>
</tr>
<tr>
<td>Most important symptoms and effects, both acute and delayed No further relevant information available.</td>
</tr>
<tr>
<td>Indication of any immediate medical attention and special treatment needed</td>
</tr>
<tr>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>
5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**: Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture**: No further relevant information available.
- **Advice for firefighters**
- **Protective equipment**: No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**: Not required.
- **Environmental precautions**:
  - Do not allow product to reach sewage system or any water course.
  - Inform respective authorities in case of seepage into water course or sewage system.
  - Do not allow to enter sewers/surface or ground water.
- **Methods and material for containment and cleaning up**:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Ensure adequate ventilation.
- **Reference to other sections**
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

7 Handling and storage

- **Handling**:
  - **Precautions for safe handling**: Ensure good ventilation/exhaustion at the workplace.
  - Prevent formation of aerosols.
  - **Information about fire - and explosion protection**: No special measures required.

- **Conditions for safe storage, including any incompatibilities**
  - **Storage**:
    - **Requirements to be met by storerooms and receptacles**: No special requirements.
    - **Information about storage in one common storage facility**: Not required.
    - **Further information about storage conditions**: Keep container tightly sealed.
    - **Specific end use(s)**: No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities**: No further data; see item 7.

- **Control parameters**
  - **Ingredients with limit values that require monitoring at the workplace**:
    - **78-83-1 butanol (2.5-10%)**
      - WEL: Short-term value: 231 mg/m³, 75 ppm
      - Long-term value: 154 mg/m³, 50 ppm
  - **Additional information**: The lists valid during the making were used as basis.
Trade name: Transpoxy Barrier

- Exposure controls
- Personal protective equipment:
  - General protective and hygienic measures:
    Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes and skin.
  - Respiratory protection:
    In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
  - Protection of hands:
    Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

- Material of gloves
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material
  The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection:
  Tightly sealed goggles

9 Physical and chemical properties

- Information on basic physical and chemical properties
  - General Information
  - Appearance:
    Form: Liquid
    Colour: According to product specification
    Odour: Characteristic
    Odour threshold: Not determined.
  - pH-value: Not determined.
  - Change in condition
    Melting point/Melting range: Undetermined.
    Boiling point/Boiling range: Undetermined.
  - Flash point: 252 °C
  - Flammability (solid, gaseous): Not applicable.
Trade name: Transpoxy Barrier

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ignition temperature:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Self-igniting:</td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td>Danger of explosion:</td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Explosion limits:</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour pressure:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Density at 20 °C:</td>
<td>1.49 g/cm³</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water:</td>
<td>Not miscible or difficult to mix.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water):</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity:</td>
<td></td>
</tr>
<tr>
<td>Dynamic at 20 °C:</td>
<td>9600 mPas</td>
</tr>
<tr>
<td>Kinematic:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solvent content:</td>
<td></td>
</tr>
<tr>
<td>VOC (EC)</td>
<td>0.00 %</td>
</tr>
<tr>
<td>Solids content:</td>
<td>75.5 %</td>
</tr>
<tr>
<td>Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

## 10 Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid: No further relevant information available.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known.

## 11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - Primary irritant effect:
    - on the skin: Irritant to skin and mucous membranes.
    - on the eye: Irritating effect.
    - Sensitization: Sensitization possible through skin contact.
- Additional toxicological information:
  The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

(Contd. on page 6)
12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Behaviour in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Ecotoxicological effects:
- Remark: Harmful to fish
- Additional ecological information:
- General notes:
  Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
  Do not allow product to reach ground water, water course or sewage system.
  Danger to drinking water if even small quantities leak into the ground.
  Harmful to aquatic organisms
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- Other adverse effects: No further relevant information available.

13 Disposal considerations

- Waste treatment methods
- Recommendation
  Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
- ADR, IMDG, IATA
  UN1263
- UN proper shipping name
  ADR
  IMDG, IATA
  1263 PAINT
  PAINT
- Transport hazard class(es)
  ADR, IMDG, IATA
  Class
  3 Flammable liquids.
- Packing group
  ADR, IMDG, IATA
  III
- Environmental hazards:
- Marine pollutant:
- Special precautions for user
  Warning: Flammable liquids.
Trade name: Transpoxy Barrier

**EMS Number:** F-E,S-E

**Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

**Transport/Additional information:**

- **ADR**
- **Limited quantities (LQ)** 5L
- **UN "Model Regulation":** UN1263, PAINT, 3, III

### 15 Regulatory information

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Relevant phrases**

- **H226** Flammable liquid and vapour.
- **H315** Causes skin irritation.
- **H317** May cause an allergic skin reaction.
- **H318** Causes serious eye damage.
- **H319** Causes serious eye irritation.
- **H335** May cause respiratory irritation.
- **H336** May cause drowsiness or dizziness.
- **H411** Toxic to aquatic life with long lasting effects.
- **R10** Flammable.
- **R36/38** Irritating to eyes and skin.
- **R37/38** Irritating to respiratory system and skin.
- **R41** Risk of serious damage to eyes.
- **R43** May cause sensitisation by skin contact.
- **R51/53** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- **R67** Vapours may cause drowsiness and dizziness.

**Department issuing MSDS:** Product safety department.

**Contact:** Mr. S.K. Lim

**Abbreviations and acronyms:**

- **ADR:** Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- **IMDG:** International Maritime Code for Dangerous Goods
- **IATA:** International Air Transport Association
- **GHS:** Globally Harmonized System of Classification and Labelling of Chemicals
- **EINECS:** European Inventory of Existing Commercial Chemical Substances
- **ELINCS:** European List of Notified Chemical Substances
- **CAS:** Chemical Abstracts Service (division of the American Chemical Society)
- **VOC:** Volatile Organic Compounds (USA, EU)

* Data compared to the previous version altered.